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NOTES ON GEOGRAPHIC DISTRIBUTION

First record of *Itapotihyla langsdorffii* (Duméril and Bibron, 1841) (Amphibia: Hylidae) from a Cerrado region in Minas Gerais state, Brazil

Heliomar Cazelli [1] and Mario Ribeiro Moura [1,2*]

1 Universidade Federal de Viçosa, Departamento de Biologia Animal, Museu de Zoologia João Moojen. Avenida Peter Henry Rolfs s/n. CEP 36570-000. Viçosa, MG, Brazil.
2 Ecos Biota Consultoria Ambiental. Rua Senador Vaz de Melo 64/40. CEP 36570-000. Viçosa, MG, Brazil.
* Corresponding author. E-mail: *mario.moura@ecosbiota.com.br*

ABSTRACT: *Itapotihyla langsdorffii* is widely distributed along the Brazlian Atlantic Forest, however, it presence in Minas Gerais state was restricted to five localities, all of them located within the Atlantic Forest domain. Herein, we present the first record of this species from a Cerrado region in Minas Gerais, southeastern Brazil.

Itapotihyla langsdorffii (Duméril and Bibron, 1841) is a large sized tree frog widely distributed in the Brazilian Atlantic Forest, occurring from the state of Sergipe (Castro Forest, municipality of Santa Luzia do Itanhy) (Arzabe and Loebmann 2006) to the northern of Rio Grande do Sul (Mata Paludosa Biological Reserve, municipality of Itati) (Lingnau *et al.* 2006). It also occurs in northwestern Argentina and eastern Paraguay (Frost 2011).

Although *Itapotihyla langsdorffii* presents a wide and disjunct geographic distribution, it was considered "Vulnerable" in the first Red List of Threatened Species of the Brazilian state of Minas Gerais (Machado *et al.* 1998). The initial reasons for this regional conservation status were habitat destruction, limited distribution area and isolated populations in that time. However, the recent increase in the number of records for the species allowed reclassification of its conservation status as "Least Concern", since it has a wider distribution than initially expected (Biodiversitas 2007). Currently, *I. langsdorffii* is known only from five localities in Minas Gerais, all located within the Atlantic Forest domain (Feio *et al.* 1998; 1999; Feio and Ferreira 2005; Silva *et al.* 2011) or in areas directly influenced by this biome (Kleinsorge *et al.* 2009). Herein we report a new record of *I. langsdorffii* from a Cerrado region in Minas Gerais.

On 18 April 2011 a specimen of *Itapotihyla langsdorffii* (46.6 mm snout-vent length, Figure 1) was captured while crossing an unpaved road, parallel to the left bank of the Pará River (19°31'48" S, 45°01'18" W, 604 m elevation), a tributary of the São Francisco River, municipality of Martinho Campos. The specimen was sacrificed using 5% xylocain cream, and preserved in 10% formalin (collection permits given by Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis [IBAMA] #081/2011). The voucher was housed at the herpetological collection of the Museu de Zoologia João Moojen, Universidade Federal de Viçosa, municipality of Viçosa, state of Minas Gerais (MZUFV 11284).

FIGURE 1. *Itapotihyla langsdorffii* specimen (46.6 mm SVL, MZUFV 11284) collected at the municipality of Martinho Campos, Minas Gerais, Brazil. Photo by M.R. Moura.

Considering the previous reports of *Itapotihyla langsdorffii* from Minas Gerais state, two inconsistencies may be noticed in relation to the municipalities informed. In Feio and Ferreira (2005), the occurrence of the species is reported to the Mata da Cabeceira (21°31'23" S, 43°11'01" W), municipality of Rio Novo. However, the coordinates informed by these authors are inserted within the municipality of Goianá, which is approximately 10 km away from Rio Novo. Additionally, in Silva *et al.* (2011), the record reported at the coordinates 19°21'09" S, 42°20'22" W, from municipality of Ipaba actually belongs to municipality of Bugre. Both mistakes are probably due to the proximity of the localities investigated to the boundaries of the municipalities related (Figure 2).

Our new record of *Itapotihyla langsdorffii* from Martinho Campos is located within the Cerrado domain, which represents an unexpected occurrence for this species, considering the distribution range typically associated with the Atlantic Forest (Aquino *et al.* 2004). In

2003, Toledo *et al.* reported the presence of *I. langsdorffii* in a Cerrado area in the southern highlands in the Brazilian state of São Paulo, at the municipality of Rio Claro (22°25' S, 47°33' W). According to these authors, anthropogenic activities may have resulted in the accidental introduction of the species, for example as a result of trade in ornamental plants from the Atlantic Forest, used as shelter by individuals of *I. langsdorffii*. However, we could not confirm if the new record in Martinho Campos is result from accidental introduction.

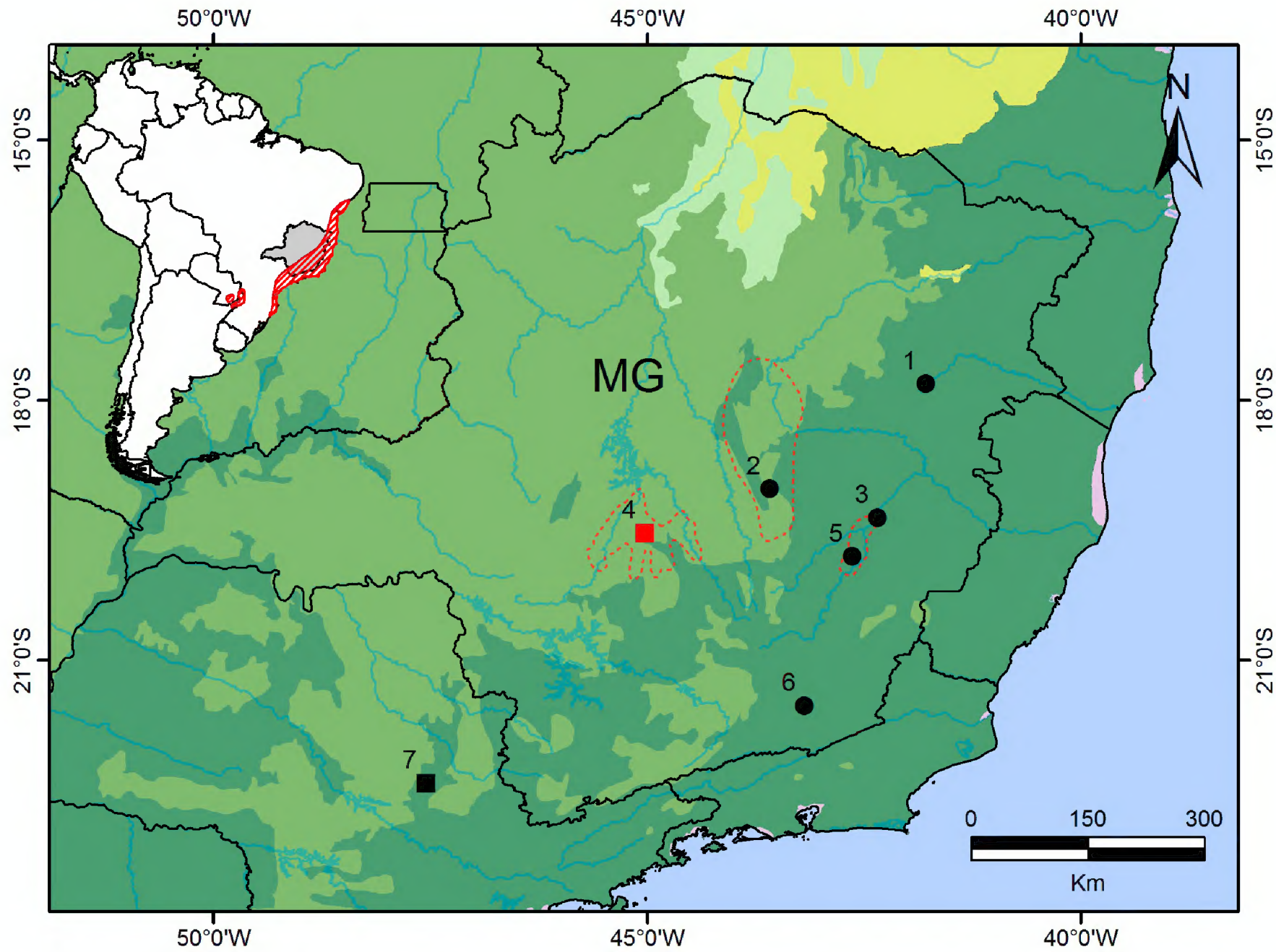

FIGURE 2. Geographic distribution of *Itapotihyla langsdorffii* in Cerrado at Minas Gerais (MG) and São Paulo (SP), Brazil. Symbols: Circle = Literature record, Square = new record. Municipalities: 1, Poté (Silva *et al.* 2011); 2, Conceição do Mato Dentro (Kleinsorge *et al.* 2009); 3, Bugre (Silva *et al.* 2011); 4, Martinho Campos; 5, Marliéria (Feio *et al.* 1998; 1999); 6, Goianá (Feio and Ferreira 2005); 7, Rio Claro (Toledo *et al.* 2003). Dashed red line: boundaries of the priority areas for the conservation of herpetofauna. The small insert shows the complete geographic distribution (hatched area) of *I. langsdorffii* according with Aquino *et al.* (2004). Atlantic Forest; Cerrado; Caatinga; Atlantic Dry Forest.

The current disjunct distribution of *I. langsdorffii* between the Atlantic forest and decidual forests in the border between Paraguay and Argentina is probable a relictual distribution resulting from a contiguous population that may have existed during forest expansions in late Quaternary. However, modeling of Atlantic Forest range under climatic scenarios of 6,000 and 21,000 years did not predict any retention of large, stable forest refuge in the central and western Cerrado regions of Minas Gerais state (Carnaval and Moritz 2008). Therefore, we believe that the new record might result from an expansion of the *I. langsdorffii* range towards the Cerrado biome (not following an Atlantic forest expansion) since the ponds formed along the riparian vegetation of the Pará River may support reproduction and occurrence of the species.

The new record also represents the most continental known occurrence of *I. langsdorffii* in Minas Gerais, located approximately 160 km southwestern from Serra do Intendente State Park, municipality of Conceição do Mato Dentro (Kleinsorge *et al.* 2009), the closest previous record. It is worth noting that three of the six known sites of occurrence of this species in Minas Gerais are located in areas classified as priority for conservation of the herpetofauna, including the new record present here, located in the priority area of Upper São Francisco River region (Drummond *et al.* 2005).

One of the parameters used in the selection of priority areas for conservation is the total species richness. A priority area is classified as "potential" in relation to its biological importance when it is insufficiently known and deserves scientific research (Drummond *et al.* 2005), like the priority area of Upper São Francisco River region. The development of studies that present basic information such as species lists or even notes of geographic distribution is especially important to detect species of restricted distribution or rare occurrence.

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